Roland MC-505 Replacement Display Install Guide

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Installation of this part along with any associated risks involved in the process are the responsibility of the installer. Proceed at your own risk.

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Roland MC-505 LCD Replacement Guide

Fig. 1 - Original MC-505 LCD display that has gone bad.

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PROCEED AT YOUR OWN RISK!

Read this entire guide before beginning the installation process. Take your time, take notes, and take photos if you feel the need to do so along the way. Installation of this part along with any associated risks involved in the process are the responsibility of the installer.

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Be sure to UNPLUG the machine before working on the inside, the voltages inside have the potential to be very dangerous!

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Fig. 2 - Recommended Tools

Recommended Tools*

- Metal Nibbler Tool
- 14mm or 9/16” Wrench or an Adjustable Wrench
- No.2 Phillips Head Screwdriver
- PH1 Precision Phillips Screwdriver or No.1 Phillips Screwdriver
- Flush Wire Cutters or Scissors (not pictured)
- Spudger Pry Tools
- Optional: Electric Drill and 1/16" Drill Bit (not pictured)
- Optional: Sorting Tray or Zip Lock Bags (not pictured)

* These are just the tools I used in the replacement process you may possibly be able to make substitutes

A list of links to some of the tools listed above can be found on page 19 at the end of this guide.

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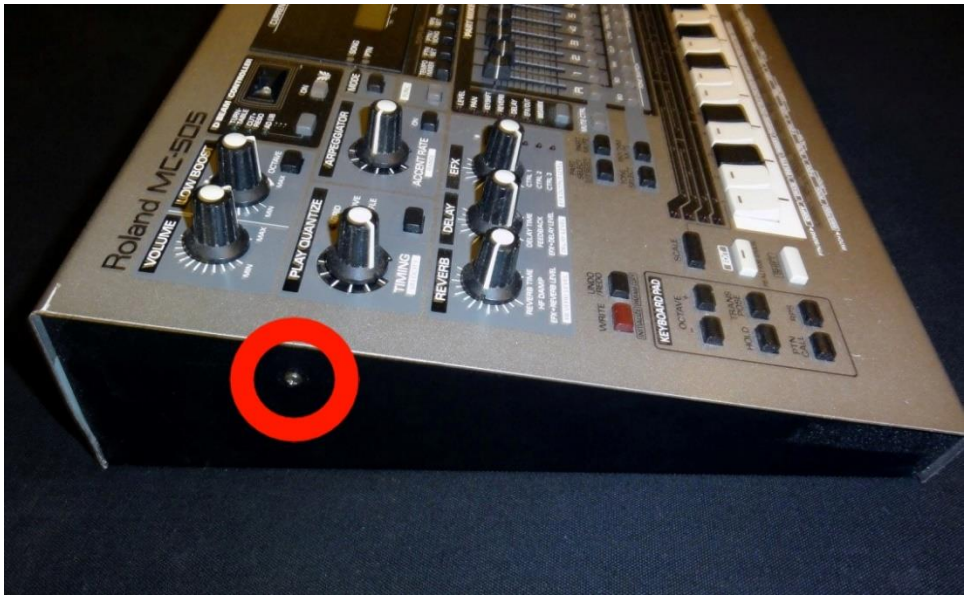

Fig. 3 - Side Case Screw

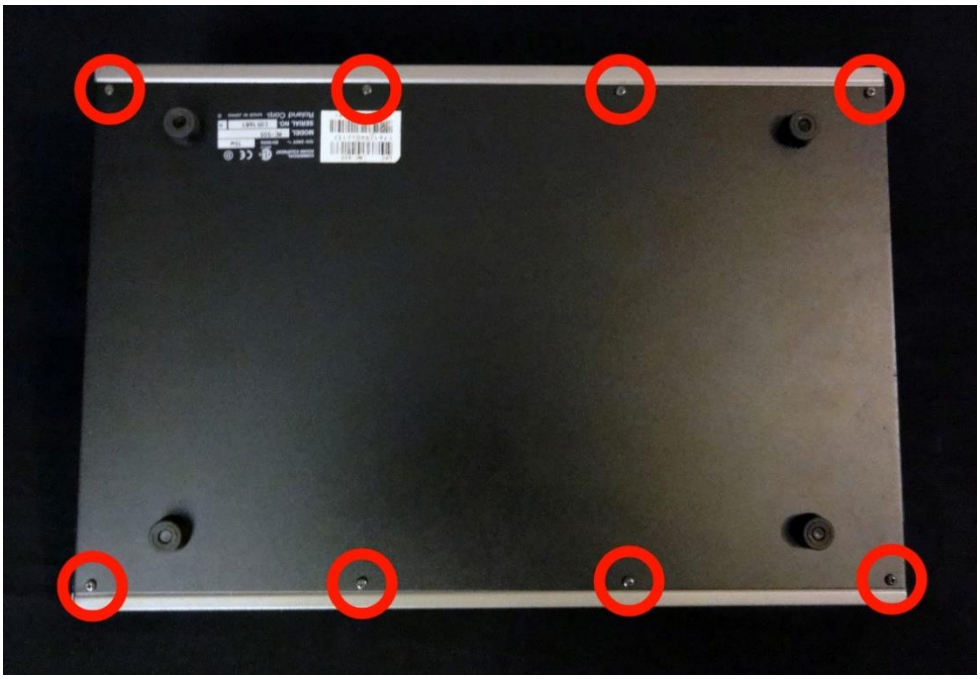

Fig. 4 - Bottom Case Screws

Step 1: UNPLUG THE UNIT BEFORE YOU BEGIN!

To remove the bottom of the case you will need to remove the screws from the sides and bottom of the case. There is 1 screw on each side and 8 screws on the bottom. These screws are shown circled in the photos above labelled Fig. 3 and Fig. 4.

Be sure to make note of which screws go where and store them in some manner so they do not get lost.

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Fig. 5 - Back of the Case

Step 2:

Remove 6 screws from the back of the case.
These are circled in the Fig. 5 photo above.

You will also need to remove the plastic nuts from the 1/4" sockets on the back of the case. You may need to loosen the nuts using a wrench. A 14mm or 9/16” wrench or an adjustable wrench can be used to loosen these nuts if needed.

Once again be sure to make note of which screws go where and store them so they're not lost. Since there are multiple different types / sizes of screws, it is a good idea not to mix them up. Personally, I used separate zip lock bags for each section of the process in this guide.

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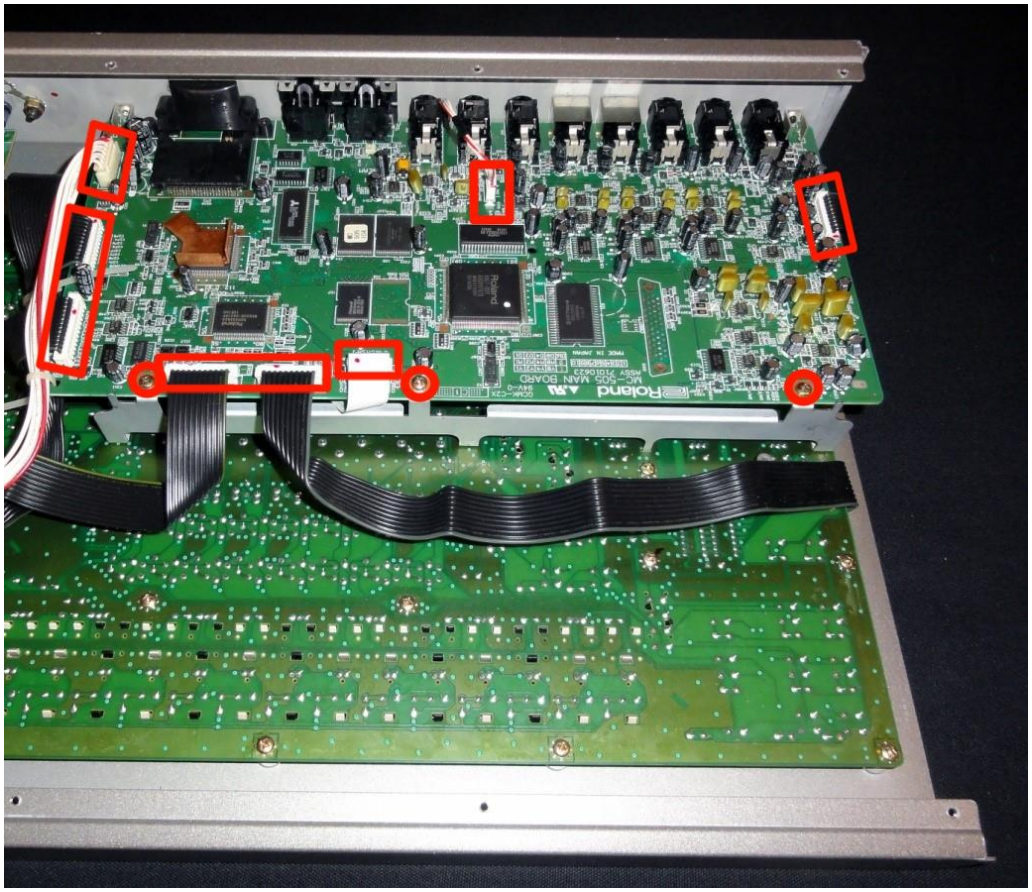

Fig. 6 - Inside Case Main board

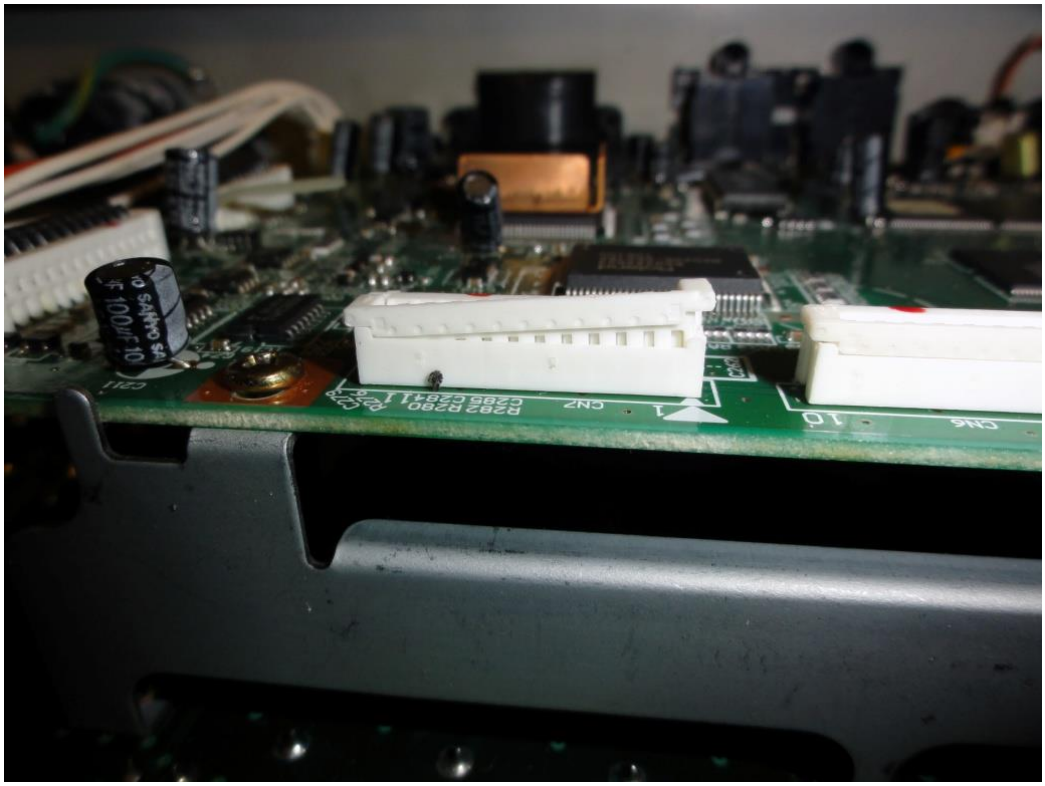

Fig. 7 - Ribbon Cable Connector One Side Opened

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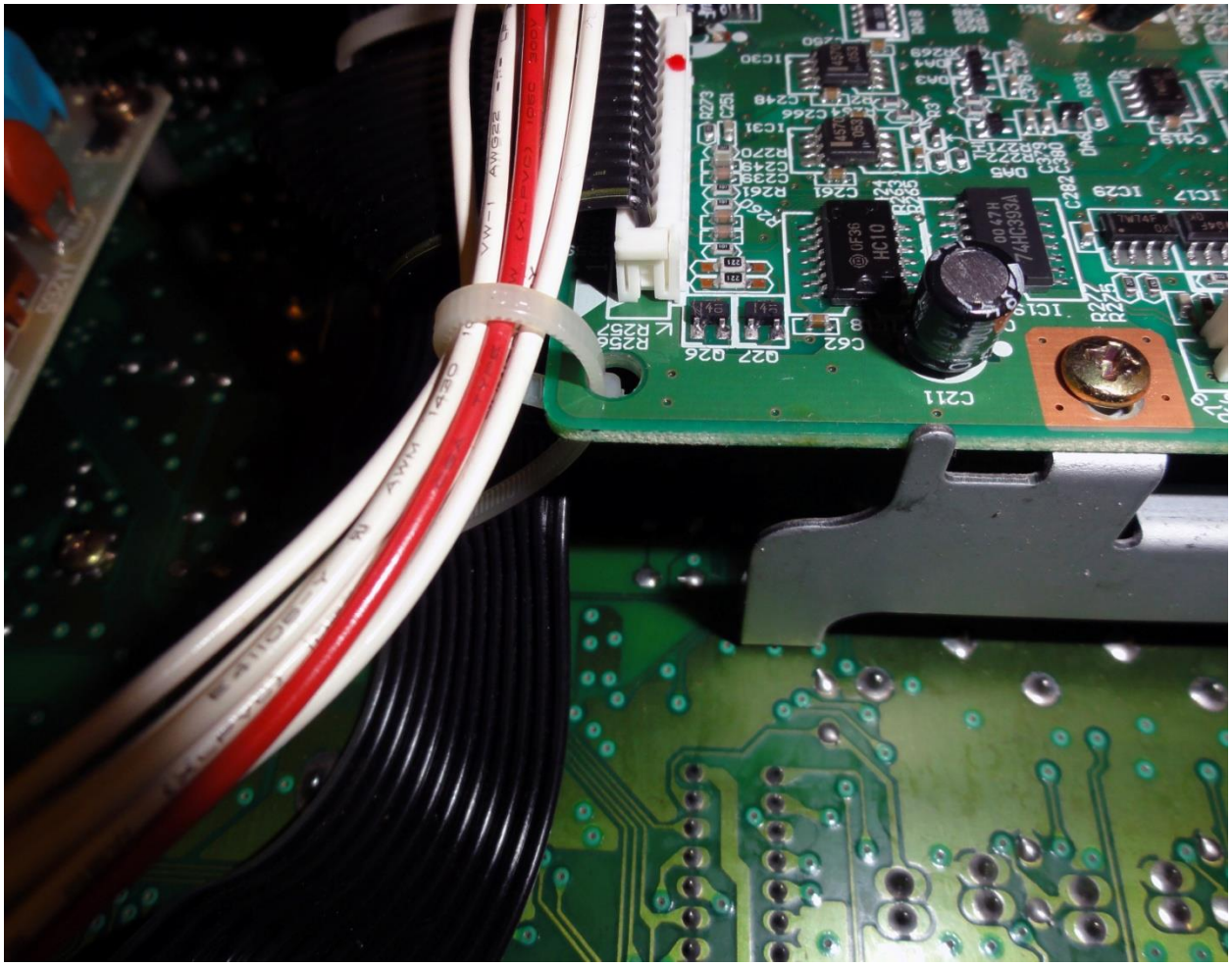

Fig. 8 - Zip Tie which needs to be cut

Step 3:

Now that the case is opened locate the main board. This is the circuit board with all of the ribbon cables connected to it shown in Fig. 6.

Disconnect all of the ribbon cables from the main board. Some of the connectors need to be unlocked as shown in Fig. 7 you must pull up on both sides of the connector to unlock and remove the cable. You will need to cut the zip tie on the lower left corner of the board shown in Fig. 8.

After removing the cables, remove the three screws holding the main board in place. Then remove the main board from the case and set it aside.

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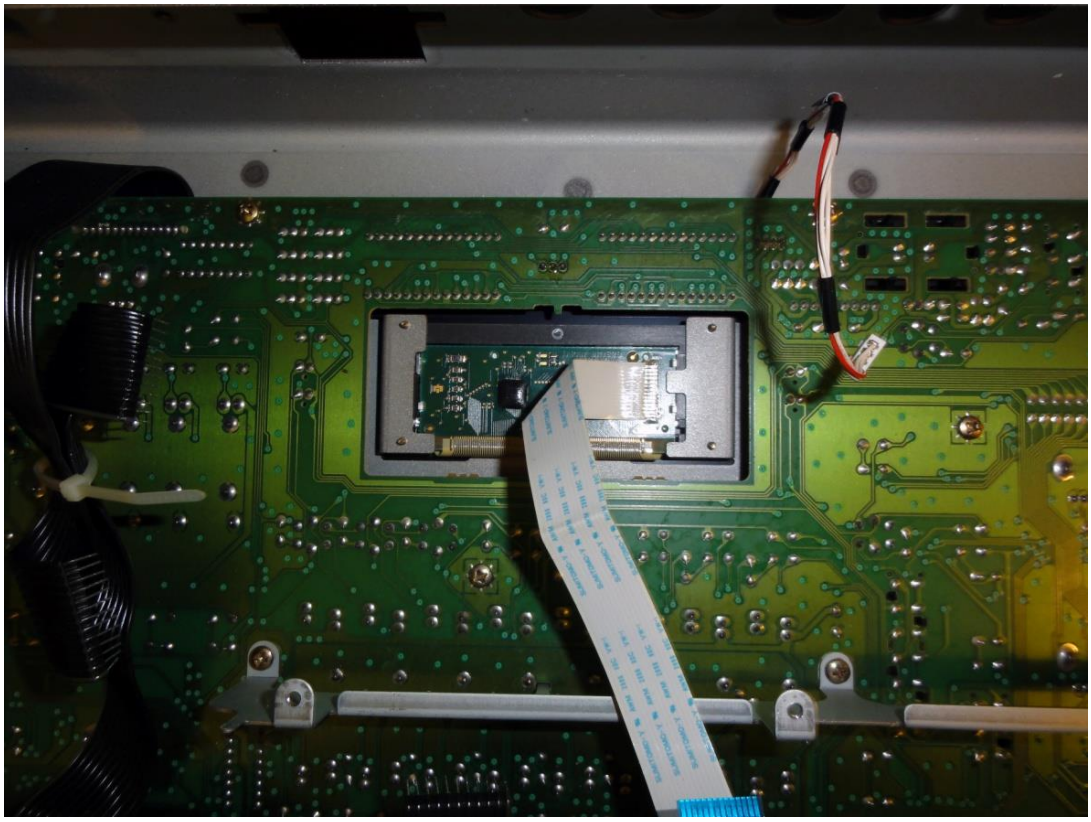

Fig. 9 - Main Board Removed

Fig. 10 - LCD cover needs to be removed

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Fig. 11 - Using tool to pry up edge of LCD front cover

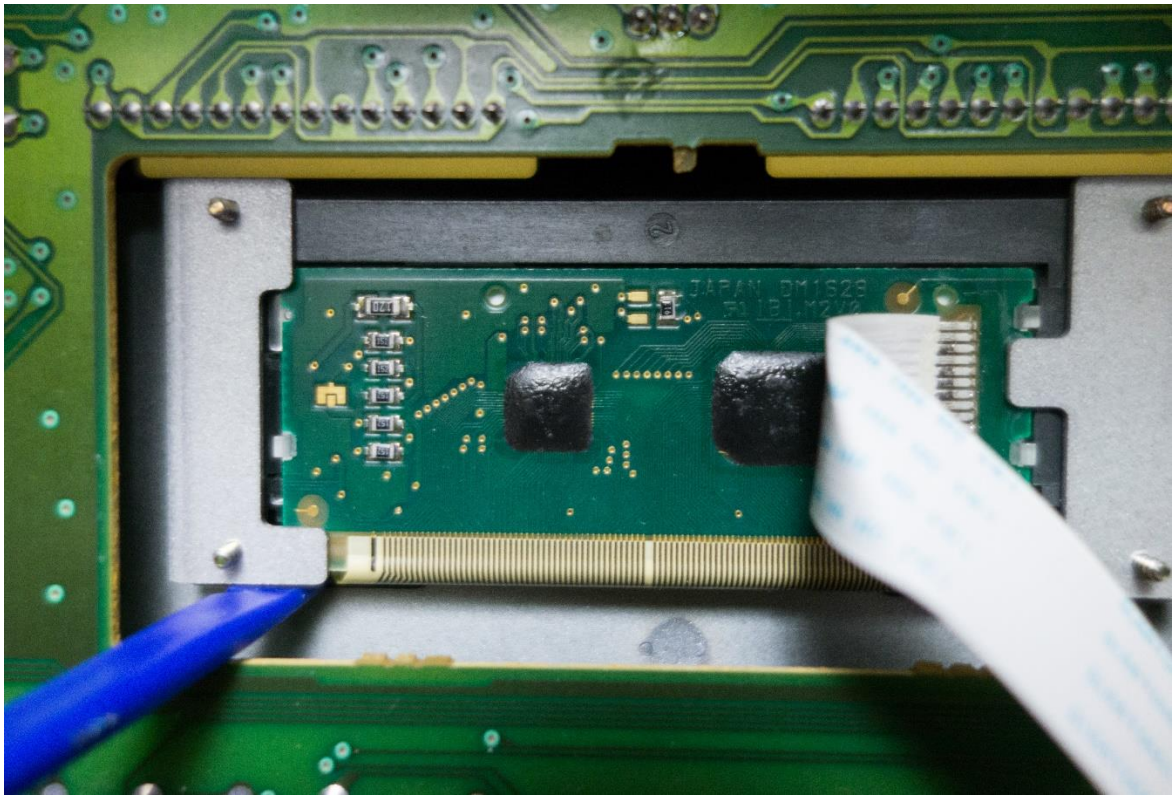

Fig. 12 - Using plastic pry tool to push on LCD front cover from the backside

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Fig. 13 - The LCD cover shown pulled up

Step 4:

You will need to remove the LCD cover from the front of the case in order to access the screws used to mount the original LCD screen in place.

There are multiple ways to accomplish removing the front LCD cover. You may be able to remove the LCD cover using a thin pry tool and prying up one of the top corners of the cover as shown in Fig. 11 and then slide the edge along the top of the cover to pry it up. You may also be able to press the cover out by pushing on the backside of the cover using a plastic tool. This is shown in the Fig. 12 photo.

As shown in Fig. 13 the LCD cover has been pulled up and you can see the double sided tape that runs across both the top and bottom edges. Once you pry up either the top edge or the bottom edge you should be able to slowly pull up the other edge by hand.

Do not use excessive force while attempting to remove the cover. It is best to use plastic tools if possible to prevent scratching the finish of the case or plastic cover. I personally have used a thin metal pry tool on multiple occasions when removing the LCD cover without causing any noticeable damage.

Remove the LCD front cover and set it aside until later.

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Fig. 14 - The LCD cover removed

Step 5:

As shown in Fig. 14 above, the LCD cover has been removed. The original LCD part is mounted in place with 4 small screws. Remove these screws using a PH1 / No.1 Phillips screwdriver, then remove the original LCD part from the case.

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Fig. 15 - The original LCD removed.

Fig. 16 - Left Tab Removed with Metal Nibbler Tool

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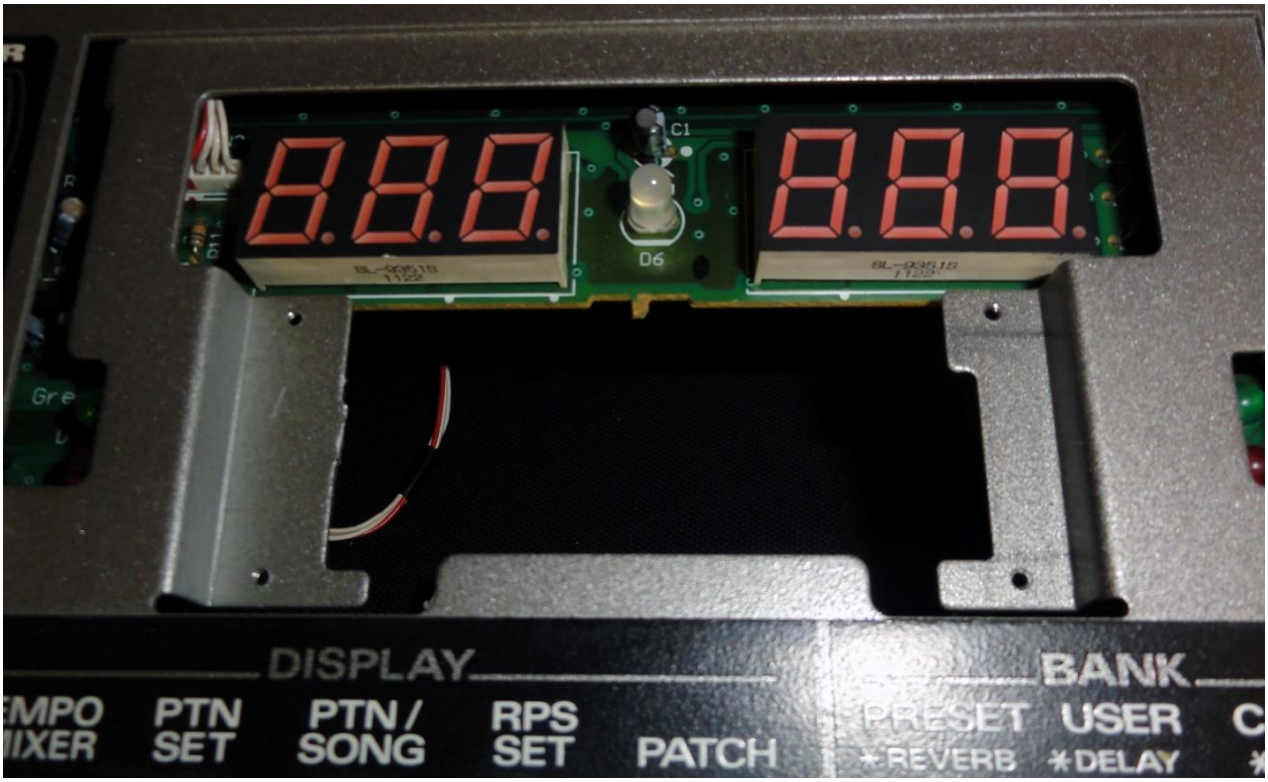

Fig. 17 - Left Tab Removed

Step 6:

Once the LCD has been removed as shown in Fig. 15 you will need to modify the case so that the new LCD can be mounted. The red dotted lines in Fig. 15 depict the approximate amount of material that needs to be removed. To do this use a Metal Nibbler tool or a Dremel / Rotary metal cutting tool. Remove the left metal tab shown in Fig. 15. Shown in Fig. 16 and Fig. 17 the left tab has been removed.

If using a metal nibbler tool to make cuts be sure that no pieces of metal have gotten into the case or remain inside the case after completing the procedure.

If using a Dremel type rotary cutter to modify the case I would suggest removing everything from the case prior to cutting to prevent getting metal shavings inside the unit and onto the circuit boards. Be sure to dust out any metal shavings that are produced from making cuts.

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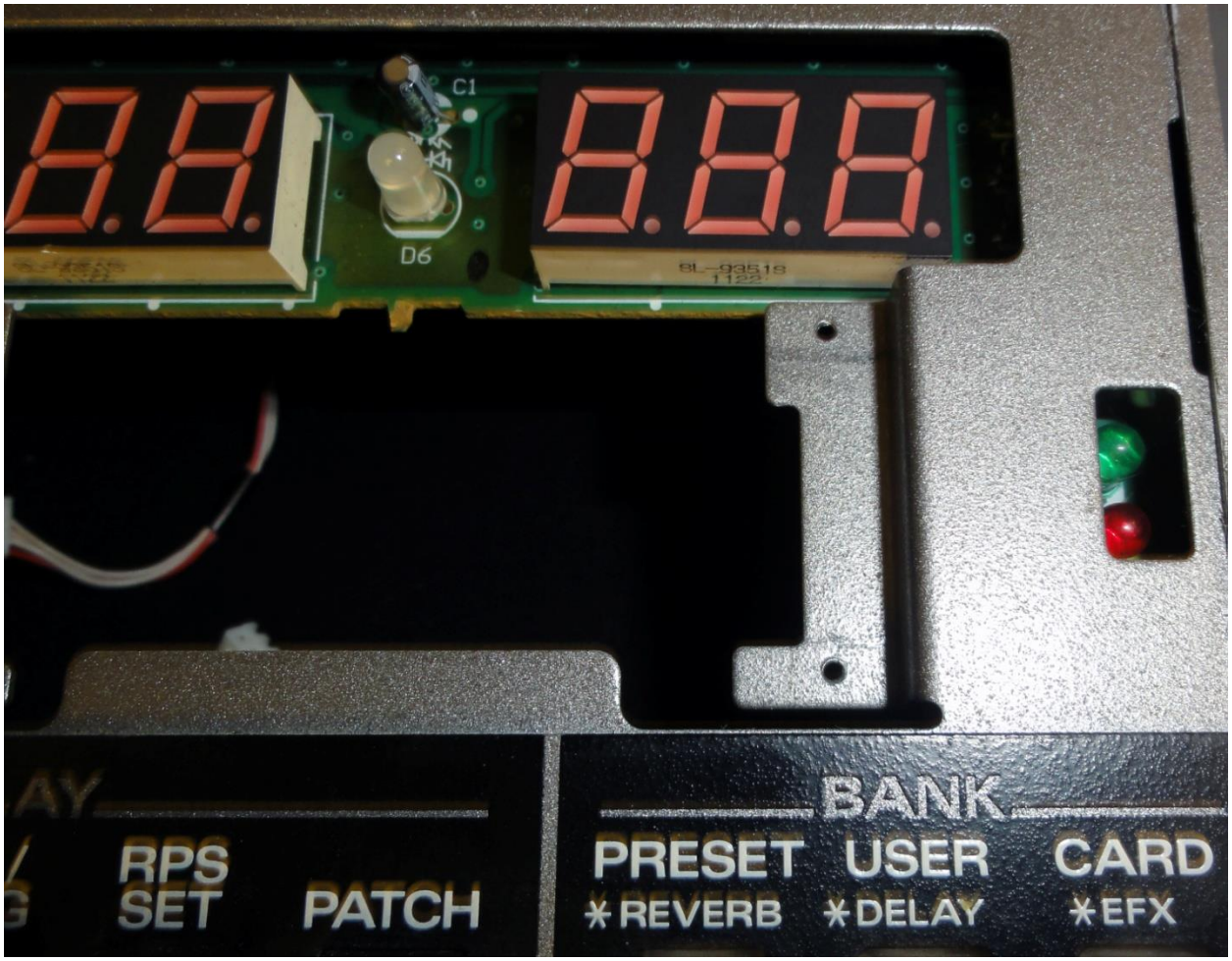

Fig. 18 - Pencil Marks roughly indicating what to remove

Step 7:

Once you have removed the tab on the left side you then will need to modify the right side. The red dotted lines in Fig. 15 depict the approximate amount of material that needs to be removed. In Fig. 18, the picture shows some rough pencil marks used to indicate what will be removed. On the next page, page 14 in Fig. 19, the right side is shown with the modification completed. Notice that the bottom left tab and the bottom right tabs are now closer to the same width. In addition, notice all of the material has been removed flush with the right side wall.

Be sure to remove all of the material as shown in Fig. 19 in order to not short the LED pins located on the edge of the new LCD with the metal MC-505 case. Also, make sure not to cut the screw holes as they will be used to mount the new LCD back into place.

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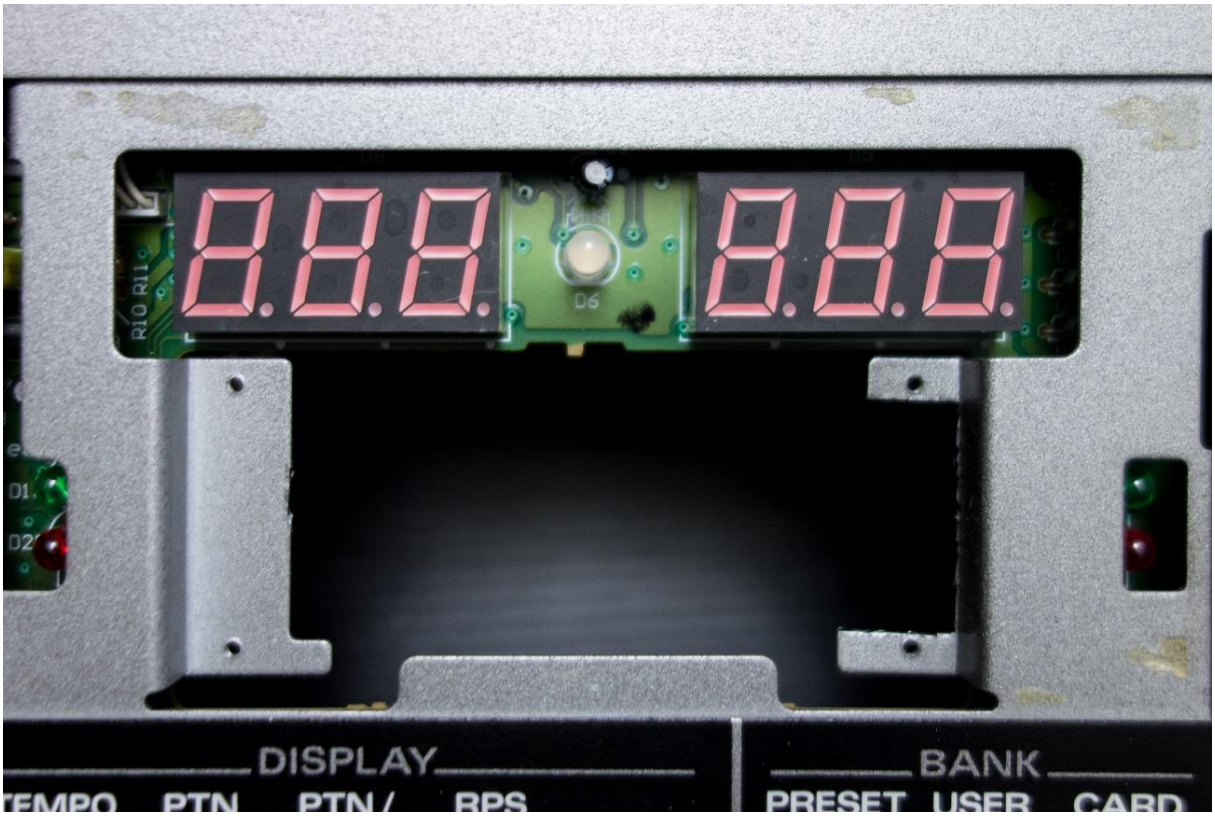

Fig. 19 –Both Left and Right Side Modified

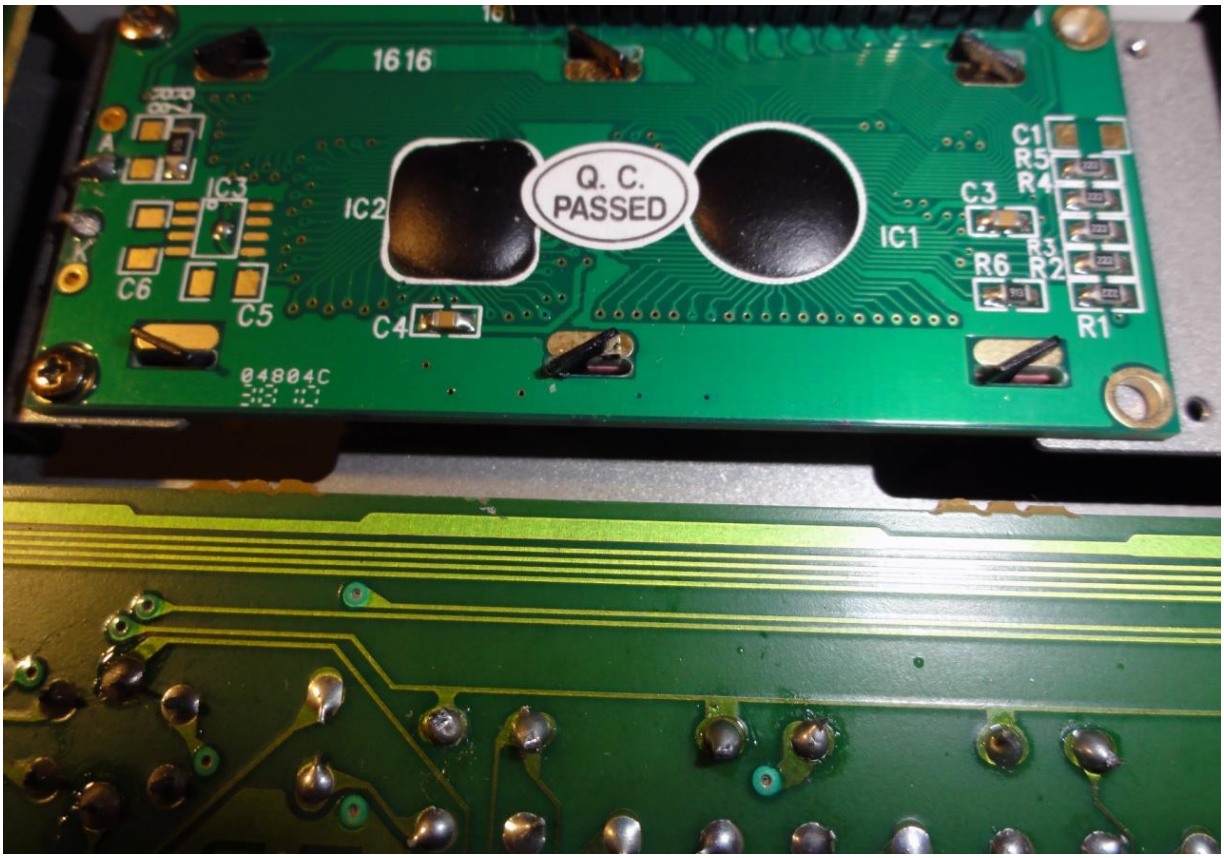

Fig. 20 - New LCD screwed in place back view (LCD backpack connector not shown)

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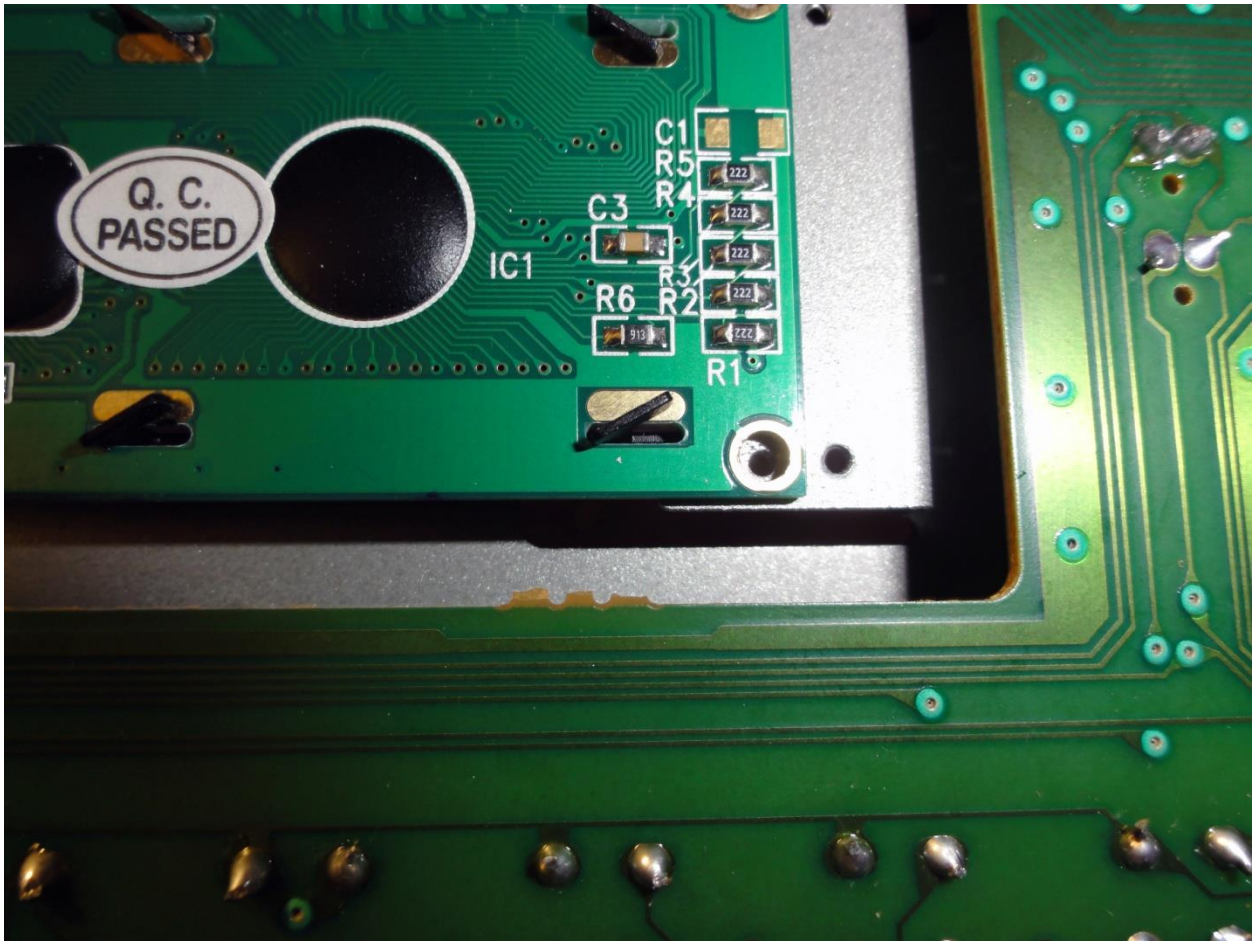

Fig. 21 - New hole drilled for a third screw

Step 8:

After you have modified the case so that the new LCD fits and aligns properly, and the pins on the edge of the display are not touching the metal mounting frame you can proceed to screw the LCD in place using two screws as shown in the Fig. 20 photo on page 14.

Notice that the two original mounting holes on the other end do not align with the new LCD. These are not needed to secure the LCD in place but you may optionally drill new holes if you'd like both sides of the LCD screwed in place.

Personally, I chose to drill one new hole in the bottom right corner, to further secure the new LCD in place. Do not drill any new mounting holes until you are certain the LCD is correctly positioned and aligned properly. Complete Step 9 before drilling any new mounting holes.

The drill bit size needed is 1/16" and these small bits tend to break easy so be careful not to put too much pressure down on the bit or it may snap. Since the drilled hole is unthreaded it may be bit more difficult to screw in initially.

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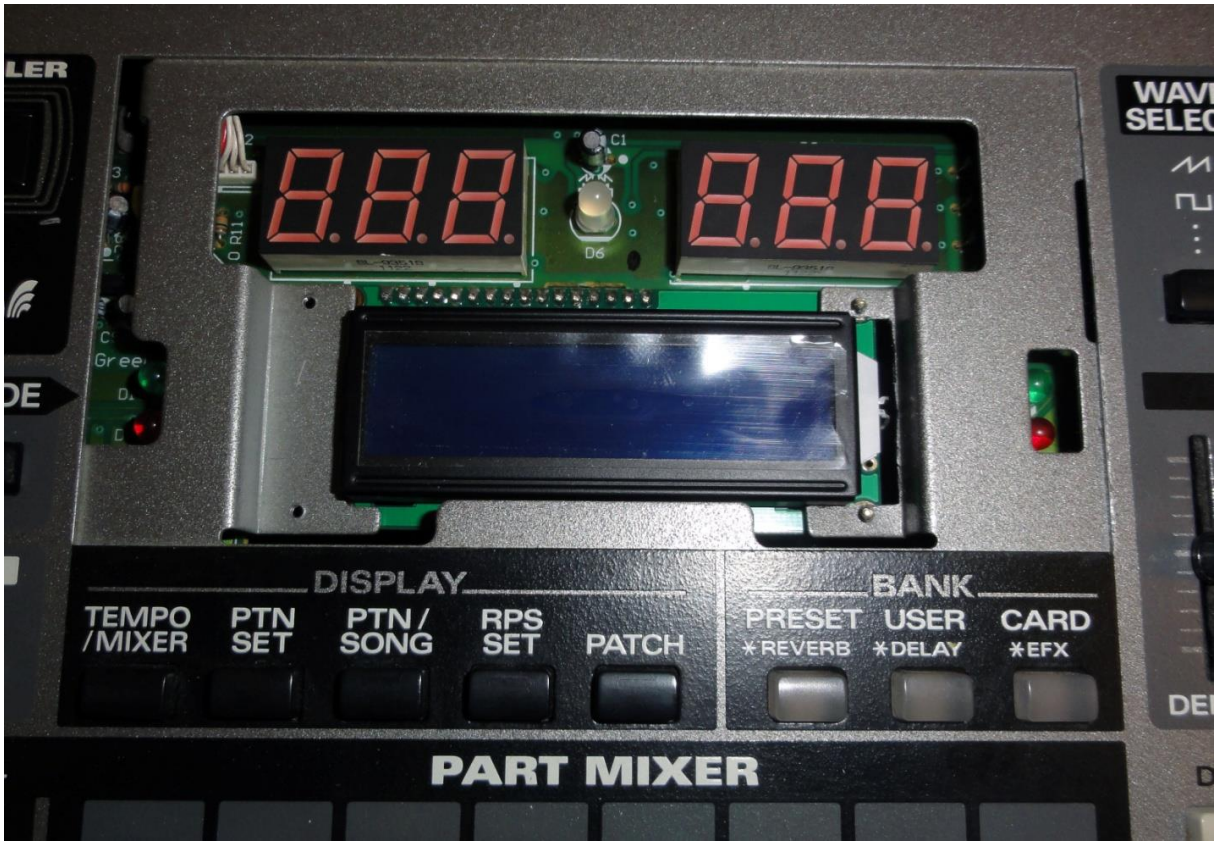

Fig. 22- New LCD screwed in place front view

Fig. 23 - Testing LCD before closing up the case

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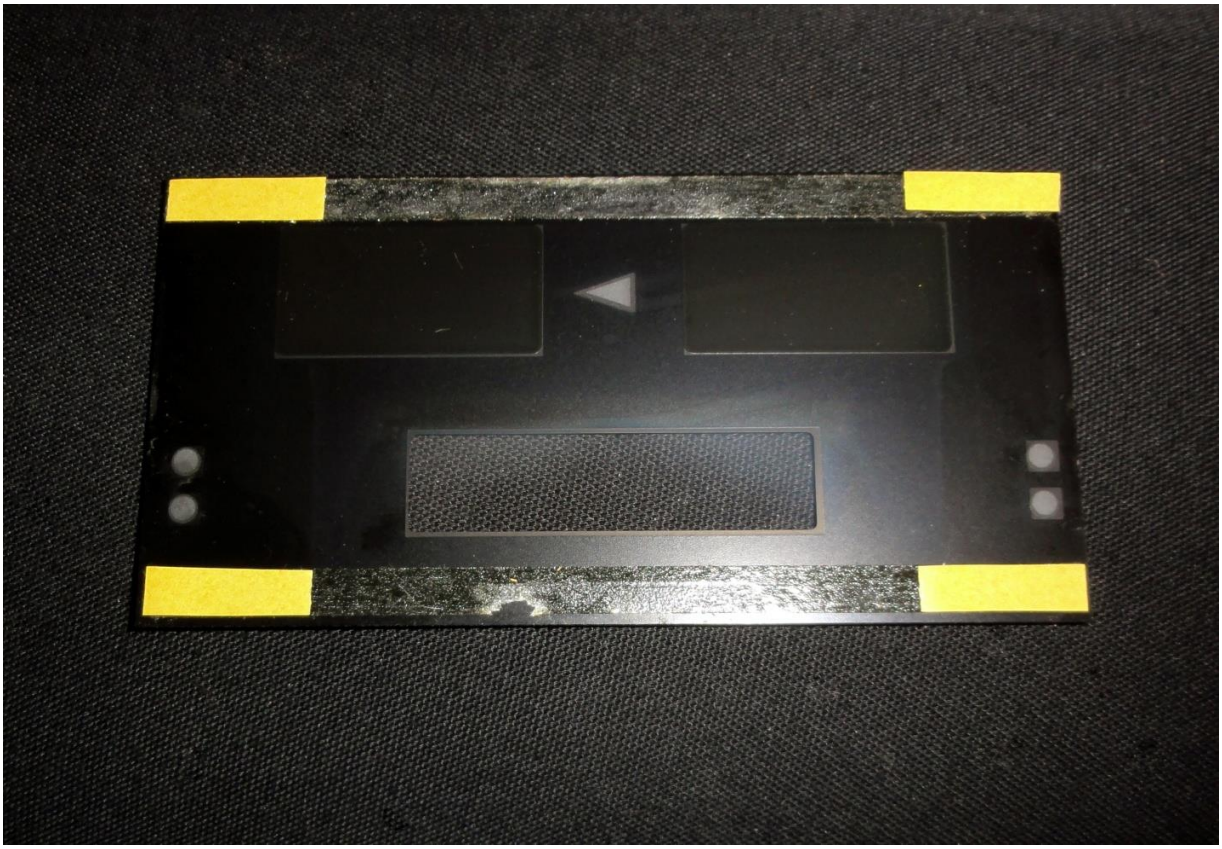

Fig. 24 - LCD cover with new double back tape applied

Step 9:

Now that the new LCD is screwed in place, I suggest hooking the main board back up and doing a quick test of the LCD before closing everything up and putting the LCD cover back in place. Check that the LCD screen looks correctly aligned and place the LCD cover on without having the new double sided tape exposed, just to double check how things look and if the LCD is correctly installed and aligned.

Some double sided tape is provided in order to secure the LCD cover back into place. Cut the tape into smaller pieces and place on each of the corners of the LCD cover as shown above in Fig. 24. When ready, expose the tape and align the LCD cover properly and secure it back into its original position.

Put everything back together and close it all up.

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Fig. 25 - Setting the LCD contrast

Step 10:

Now that the installation is finished you may need to adjust the LCD contrast.

To do this power up the MC-505. Once it is fully powered up you will need to hold down the **shift** button and press keyboard key **10**. The screen should display the LCD Contrast menu setting as shown in Fig. 25 above. You may need to use the < PAGE > buttons to find the LCD Contrast menu. Use the rotary dial to adjust the contrast to your liking and press enter.

Congrats! Installation complete.
Enjoy your new fully functional MC-505 LCD screen.

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Listed below are the tools listed in the Recommended Tools section:

- Metal Nibbler Tool
- 14mm or 9/16” Wrench or an Adjustable Wrench
- No.2 Phillips Head Screwdriver
- PH1 Precision Phillips Screwdriver or No.1 Phillips Screwdriver
- Flush Wire Cutters or Scissors (not pictured)
- Spudger Pry Tools
- Optional: Electric Drill and 1/16" Drill Bit (not pictured)
- Optional: Sorting Tray or Zip Lock Bags (not pictured)

These are just the tools I used in the replacement process you may possibly be able to make substitutes. I have provided links below to some of the tools listed above. By providing these links we are making no claims regarding the quality of the tools linked below. Some of them may be great, some of them may be awful, and some may fall somewhere in between. Use your own discretion before purchasing any of the tools linked below.

The links found below are Amazon affiliate links, if you purchase an item using any of these links we receive an affiliate commission at no extra cost to you and it helps further support us.

Metal Nibbler tool: Amazon link **Metal Nibbler Tool** --> https://amzn.to/3dsW7DC
More options: Metal Nibbler Tool Search --> https://amzn.to/3DHVNf3

Metric 14mm Wrench: **Metric 14mm Wrench Search** --> https://amzn.to/3Uq2TKM
SAE 9/16” Wrench: **SAE 9/16" Wrench Search** --> https://amzn.to/3BVkIdL
Adjustable Wrench: **Adjustable Wrench Search** --> https://amzn.to/3QUzpBN

No.2 Phillips Screwdriver: **No.2 Phillips Screwdriver Search** --> https://amzn.to/3duKT1p

No.1 Phillips Screwdriver: **No.1 Phillips Screwdriver Search** --> https://amzn.to/3xBhRnu
PH1 Precision Phillips Screwdriver: **PH1 Precision Screwdriver Search** --> https://amzn.to/3eRXTyk

Flush Cutters: **Flush Cutters Search** --> https://amzn.to/3SfU2JP

Pry Tool Spudger Kit: Amazon link **Pry Tool Spudger Kit** --> https://amzn.to/3SfaslF
More options: Spudger Pry Tool Search --> https://amzn.to/3f4M1t1

Replacement MC-505 LCD parts may be available for purchase via E-bay
glitchscience items on E-bay ---> www.ebay.com/sch/glitchscience/m.html

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